

Inside the

INTERNET

rocket science for the rest of us

URL-minder: a robot that searches the Web for you!

Navigating the Web just got easier! If you're continuously checking the same Web sites for updated information, frustrated about losing track of important Web sites, or just tired of conducting the periodic searches in order to follow a particular subject, then URL-minder is the tool you've been looking for. In this article, we'll look at how NetMind's URL-minder Web robot can help you keep track of the Internet information you need.

What is URL-minder?

The URL-minder Web site, shown in **Figure A** and located at

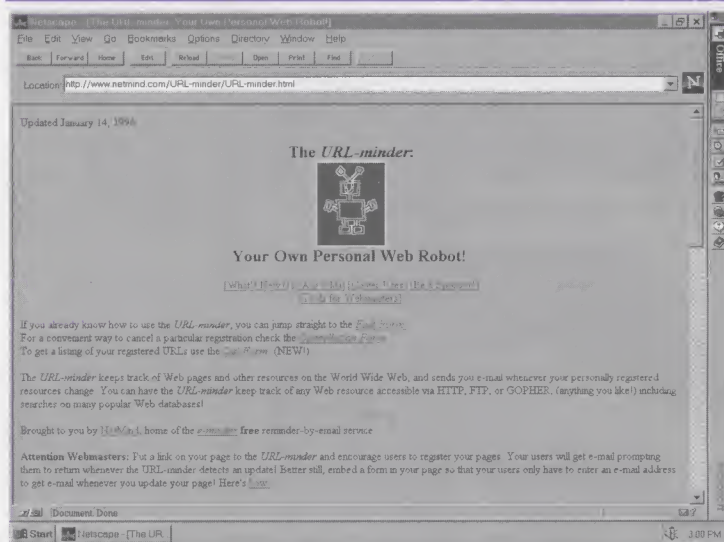
<http://www.netmind.com/URL-minder/URL-minder.html>

maintains a Web robot that can retrieve an HTML (Hypertext Markup Language) URL (Uniform Resource Locator) and look for changes in a Web page's contents. You can use the URL-minder robot to track Web pages that are accessible by Web resources like HTTP, FTP, and GOPHER, and Web databases like Yahoo!.

URL-minder works by tracking the file that corresponds to the URL you provide on the URL-minder registration form. (On the form, you'll also need to supply your name and E-mail address.) About once a week, URL-minder retrieves the URL you've specified.

Then, by comparing the file it has in storage to the one it retrieves, URL-minder is able to determine when the contents of an Internet resource change. If URL-minder detects a change, it notifies you by E-mail. If URL-minder tries to retrieve a URL twice and fails (indicating that the URL is gone or the server is busy), it will also inform you by E-mail.

Figure A



At the URL-minder Web site, you can register a URL and have the URL-minder robot watch a Web page for changes in content.

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URL-minder can track only one URL at a time, and it can't detect changes in Web pages or graphics that are linked to the URL you register. So for each distinct Web page you want to track, you need to submit a separate URL for URL-minder to follow. For example, if you want to track a particular GIF (Graphics Interchange Format) or image map, plus a specific Web page that's linked to a home page, then you'll need to submit a URL to URL-minder for each Internet resource.

Special uses for URL-minder

URL-minder has some terrific applications besides just following your favorite Web page. For example, you can use URL-minder to monitor changes on an FTP directory for new files, or have URL-minder spell-check your pages regularly with the World Wide Web Spelling Checker.

Perhaps one of the best uses for URL-minder is tracking and maintaining your own

Web pages. With URL-minder, you can keep your Web page links up to date by tracking changes in Web pages you link to, or check your guest register for new users. You can also periodically test access to your Web pages. In addition, you can use URL-minder to encourage visitors to return to your Web site by embedding a simple URL-minder form, shown in **Figure B**, on your pages. This form allows visitors to register your Web page URL just by entering their E-mail addresses. Then, each time you modify your Web page, URL-minder will E-mail registered visitors to let them know that you have new content on your Web page.

Ongoing searches

One of URL-minder's most useful applications is in its ability to help you conduct ongoing searches. By registering a search engine's results, you can conduct searches that update themselves each week. To conduct an ongoing search, you first need to make an initial search on your favorite search engine. When you finish your search, copy the URL of the search result and paste it in the URL-minder registration form. URL-minder will then perform periodic searches and E-mail you when the search results change. This technique works with any search engine on the Web that uses GET commands, but it doesn't work with search engines that use POST commands. Using this search technique with URL-minder is also a great way for keeping track of your company's competition on the Web.

Problems

URL-minder detects any change you make to your Web pages, even if that change is only minor, like a new access counter or a new date. URL-minder looks at such changes, decides that the Web page contains changes, and sends you an E-mail notification. This problem makes using URL-minder with Web pages like the Lycos search engine impractical, because Lycos includes a current date with its search results.

Conclusion

The Internet changes every day. Just keeping track of important Web sites can cost you time and money. URL-minder frees you from periodic searches and bookmark maintenance, so you can spend more time surfing for the information you need. *

Figure B

You can embed URL-minder forms on your Web pages to help inform visitors when your Web site changes.

Moving?

If you've moved recently, or you're planning to move, you can guarantee uninterrupted service on your subscription by calling us at (800) 223-8720 and giving us your new address. Or you can fax us your label with the appropriate changes at (502) 491-8050. Our customer relations department is also available via E-mail at customer_relations@merlin.cobb.zd.com.

Plug into the PDF file format with Acrobat Amber Reader

If you want to publish your documents on the Web, you'll want to take a closer look at PDF (Portable Document Format). In the January issue of *Inside the Internet*, we showed you how using PDF ensures the true look and feel of your catalogs, advertisements, and brochures in the online world of electronic publishing. This format reproduces text and graphics for the viewer exactly as you intended, regardless of what equipment the viewer uses. You can create a PDF file from any application that prints using Acrobat PDF Writer, a special printer driver from Adobe.

To view files in PDF format, all you need is Acrobat Reader, Adobe's freeware program for Windows, Macintosh, UNIX, and DOS. You can use Acrobat Reader to view and print PDF files, or distribute Acrobat Reader to your clients so they can view your PDF documents. You can configure Acrobat Reader as a helper application for your browser in order to open PDF files on Web sites.

Adobe has announced an update for Acrobat Reader that's available in a pre-release, or beta, version. Code named *Amber*, the update features seamless integration with Web browsers and progressive page-at-a-time display while loading. In this article, we'll take a look at Acrobat Amber Reader and see how its new improvements make PDF the logical choice for Web publishing.

Stuck on Netscape

As this journal went to press, Amber was available only as a plug-in for Netscape Navigator 2.0. Plug-ins are designed to work inside the browser application, adding a new function or capability to it. This technology gives browsers greater versatility and makes the Web easier to use. Adobe plans to have plug-in versions of Amber for other browsers and platforms. You can download Amber at

<http://www.adobe.com/Amber/Index.html>

Only one hoop to jump through

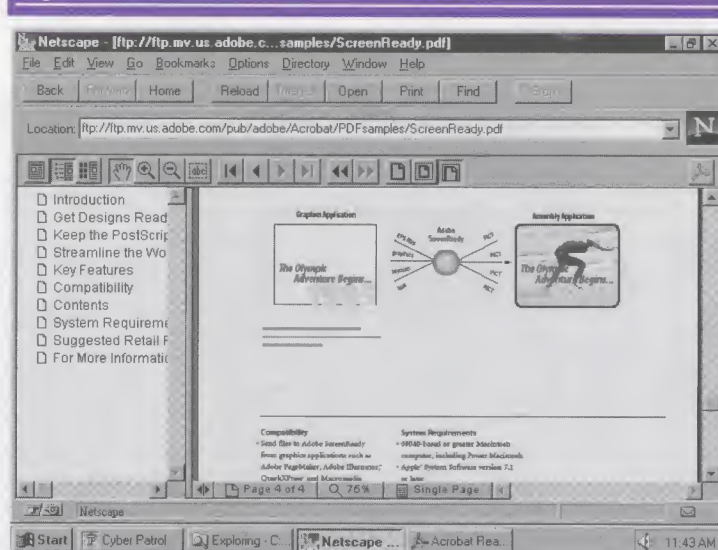
Once you install Amber, you'll find that it's as easy to use as your browser. When you follow a link to a PDF file from a Web page, Amber will automatically open within the Netscape Navigator window, as shown in **Figure A**. The

toolbar appears above the document that is loading, and its buttons let you turn pages, zoom in, print, and so forth. Normally, Acrobat Reader would act as a helper application and would open a separate window to display the file. By using an Acrobat feature called Weblinks, however, Amber is capable of instructing Netscape Navigator to follow URLs that are embedded in PDF files. This makes the inclusion of PDF files on Web sites transparent to the user.

Optimized PDF

Although Amber will display PDF files inside the browser window, you can use some of the new software's features only with "optimized" PDF files. These files have been created with another program called Acrobat Amber Exchange, which Adobe will soon make available. You can view a file in this new format one page at a time in Amber while the file is loading. Therefore, if you open an optimized PDF file that's 40 pages long, you'll be finished reading the third page before the last one loads on your computer. Amber displays optimized PDF files progressively, showing the text first and making the graphics visible as they load. This method is similar to the way you use JPEG (Joint Photographic

Figure A



Amber displays PDF files inside Netscape Navigator.

Experts Group) graphics in HTML (Hypertext Markup Language) documents.

You can compress optimized PDF files more tightly than you can compress files in

the regular format. This lets you create larger files and allows for quicker file transfers. Although Amber won't be available until later this year, Adobe has created optimized PDF examples for you to view with Amber. You can find these example files at

<http://www.adobe.com/Amber/amexamp.html>

Mirror site for Adobe

While writing this article, we often had trouble connecting to Adobe's Web site (<http://www.adobe.com>) due to the large amount of traffic there. We located an FTP (File Transfer Protocol) site in Australia that's the official mirror, or replication, of the software available for downloading from the Adobe Web server. You can find the mirror site at

<ftp://ftp.mv.us.adobe.com/pub/adobe>

Conclusion

In this article, we showed you the features of Amber, Adobe's new update for Acrobat Reader. Amber's plug-in compatibility with Netscape Navigator and optimized PDF display features make it a powerful tool for Web publishing. *

E-mail that says something— Voice E-Mail 3.0

If you rely on E-mail as a means of personal communication, then you know how easily your words can be misinterpreted. As we've grown accustomed to speed and convenience, our forms of speech have become very informal when we're writing brief electronic messages here and there. Even with "smileys" like :) and other "emoticons," plain text often fails to fully convey the thoughts and feelings behind the words you type. If you could give your written words spoken inflection, you could say what you really mean quickly and concisely. But how can you give your E-mail a voice?

Voice E-Mail 3.0 from Bonzi Software can give your electronic correspondence a voice to be reckoned with. This new software lets you send high-quality, super-compressed audio files via standard electronic mail. It's as easy as using your regular mail program, and you can send voice messages to almost anyone. If your voice mail recipients don't already own Voice E-Mail 3.0, they can download a free player program from the publisher's Web site. In this article, we'll show you the software's features, what other software and hardware you need, and where you can get Voice E-Mail.

Caveats

Before you install Voice E-Mail 3.0 for Netscape Navigator, it's a good idea to make sure that you've properly configured the Web browser. Netscape Navigator uses POP3 (Post Office Protocol 3) to receive E-mail and SMTP (Simple Mail Transfer Protocol) to send it. You'll need an E-mail account with a service provider that supports these protocols in order to use Netscape Navigator's mail features. You must give Netscape Navigator your E-mail

address, account name, and the names of the POP3 and SMTP servers you use.

Voice E-Mail compresses audio files and attaches them to electronic mail. Some service providers limit the size of E-mail file attachments that you can send or receive. Sometimes attachments aren't allowed at all. Check with your service provider to be certain you can send and receive file attachments before trying to use Voice E-Mail 3.0 for Netscape Navigator.

Windows of opportunity

Voice E-Mail 3.0 is currently available for CompuServe, America Online, and Prodigy. If you have a different access provider, you can use the Netscape Navigator or Eudora version of the program. However, the software and the free player program are compatible only with Windows 3.1 and Windows 95 or NT. Voice E-Mail may possibly support Macintosh and other platforms in the future.

For review purposes, we used the Netscape Navigator version. When you install the software, it will automatically configure itself as a helper application for the browser. Bonzi Software plans to release a true plug-in version of its product when Netscape releases Navigator 2.0 Gold (hopefully later this year). Bonzi Software will offer a free upgrade to registered users. As of this writing, you must use the 16-bit version of Netscape Navigator 2.0. You can easily obtain a copy of Netscape Navigator at Netscape's home page, located at

<http://home.netscape.com>

Dust off your microphone...

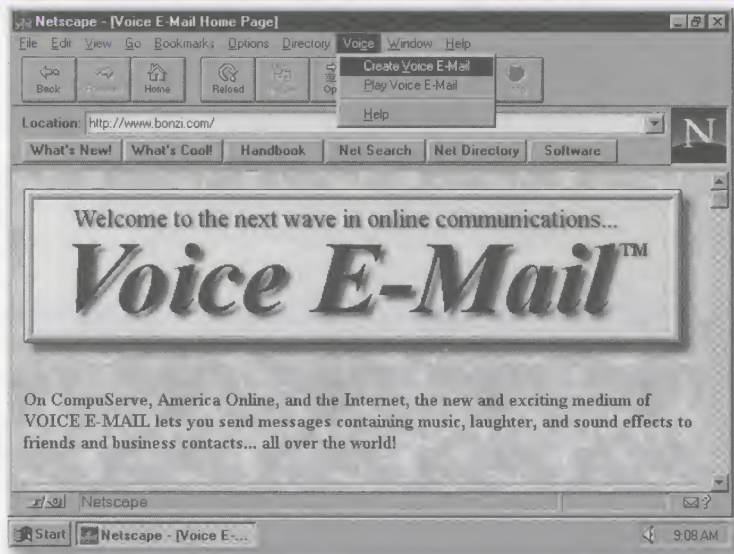
If you purchased a computer with a multimedia kit sometime in the past two years, it's likely that a microphone came with it. Maybe it's lying in a drawer somewhere. Now you'll finally get to use it to compose voice mail and add sound effects to your messages. The only other hardware you'll need for your computer is a sound card and speakers. (If you've misplaced your microphone, you can buy one in most places for less than \$10.)

...and let it rip

To begin sending and receiving voice messages, just double-click the Voice E-Mail 3.0 icon. It will open Netscape Navigator for you and highlight the new Voice menu that it added to the browser, as shown in **Figure A**.

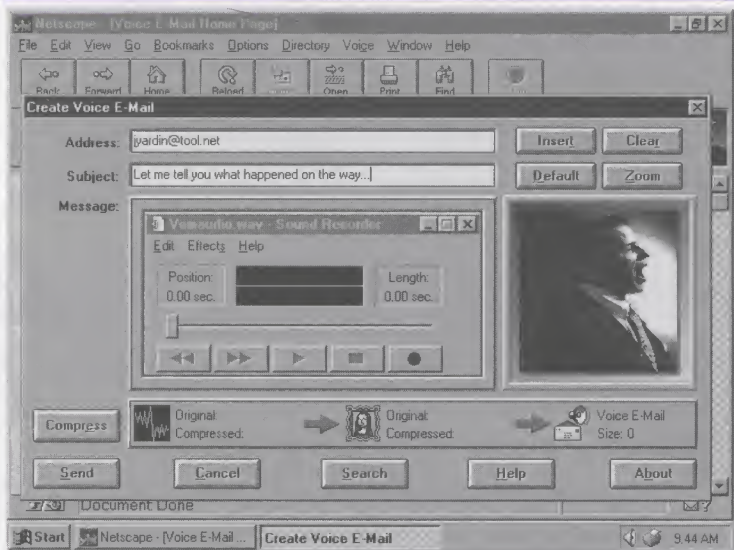
Select the Create Voice E-Mail option to begin composing your message. The Create Voice E-Mail window, shown in **Figure B**, will appear. This window contains all the simple controls necessary for creating voice mail. You address and give a subject heading to your voice mail just as you do regular E-mail. But also notice that you can include a picture in your message! To do so, click the Insert button to select an image on your hard disk. (Voice E-Mail supports all standard formats.) Click the Default button to let the program know you want to use that image for every message.

Figure A



Voice E-Mail adds a Voice menu to Netscape Navigator in order to let you create voice mail or play it back.

Figure B



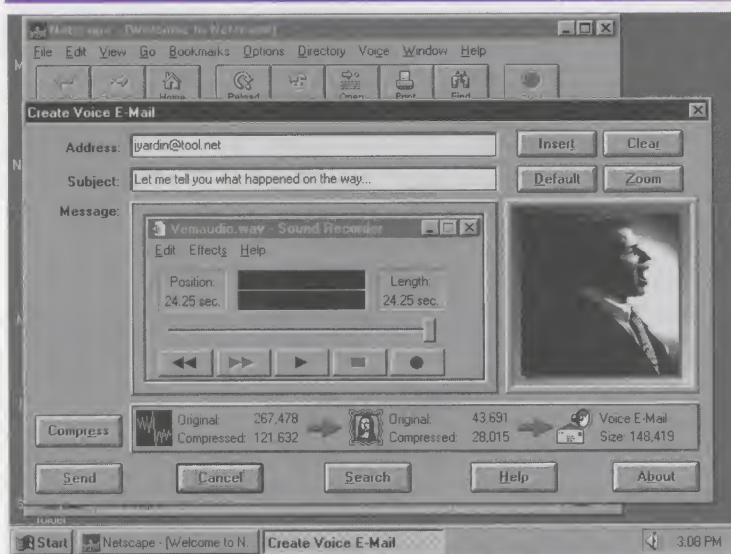
The Create Voice E-Mail window has everything you need to record and send your message.

Recording and adding effects

Voice E-Mail uses Microsoft's Sound Recorder, shown in the center of the Create Voice E-Mail window, to record your voice messages and add effects to them. Click the round button in the Sound Recorder window to begin recording, and click the square button when you're finished. As you record, Sound Recorder displays the length of the message. Click the right arrow button to play back your message.

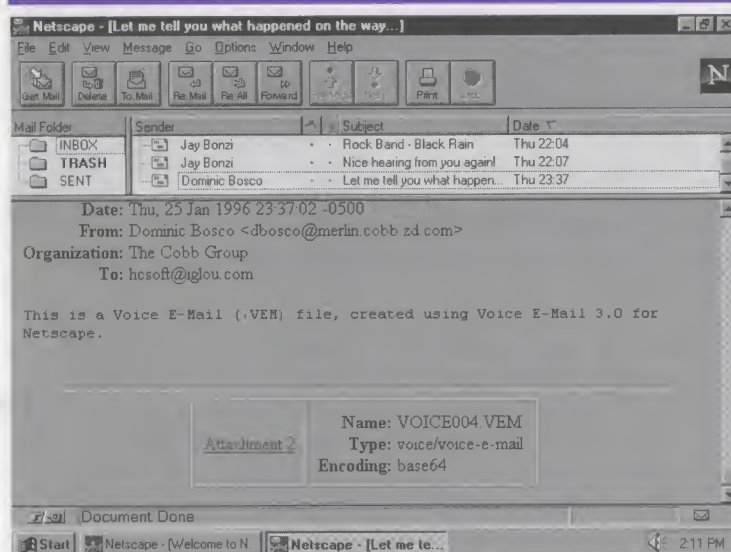
You can edit your message and add or mix other audio files into it with Sound Recorder's menu options. You can use any file in the WAV (Waveform Audio) file format. More sophisticated sound editing software from a third party might come in handy for adding sound files to your voice messages. There are also many forums on CompuServe and other online services where you can download samples of popular songs and celebrity voices.

Figure C



We used the "lossless" algorithm to reduce our files.

Figure D



You receive voice messages as E-mail attachments.

Small and sleek

Audio files can get large quickly. The bigger they are, the longer they take to transmit. No one wants to spend a lot of extra time downloading voice E-mail, so Bonzi Software needed to develop a new file-compression technology that's practical for everyday use. The company came up with a new algorithm that super-compresses audio files with no loss of digital waveform data. When uncompressed, these files are the same as the original recording.

You must compress the audio file before you send the E-mail. After you've recorded your message, click the Compress button, and Voice E-Mail will compress both the audio data and the image you included. Size reduction can vary depending upon the type of sounds you record. We reduced a 267 KB file (24 seconds long) that contained voice, music, and a 43 KB JPEG (Joint Photographic Experts Group) image file to 148 KB by using this "lossless" algorithm, as shown in Figure C. This makes the file size manageable for transfer at modem speeds of 28.8 kbps (kilobits per second).

Sending, receiving, and forwarding

Once Voice E-Mail compresses your voice message, it stores the message with a VEM (Voice E-Mail) file extension and attaches it to a regular E-mail message. Click the Send button, and your message is on its way to the recipient.

You can even send a voice message to someone who doesn't own Voice E-Mail 3.0. As long as the person uses Microsoft Windows, he or she can go to

<http://www.bonzi.com/freeplay/vemplay.htm>

and download the Voice E-Mail Player for free. This program will decompress and play a VEM file created with Voice E-Mail 3.0 and save the message as a WAV file for later playback. You can even make copies of the player and distribute them on disk or via E-mail to your friends and relatives.

When you receive Voice E-Mail messages, they appear in the Netscape Navigator mail window, shown in Figure D, as attachments in a regular E-mail message. To listen to the message, double-click on the attached file. The player program will then automatically start and let you play the recording. You'll see the sender's picture displayed in the Voice E-Mail 3.0 Player window, shown in Figure E. If the voice

mail is worth keeping, click the Save As button to save the message as a WAV file on your hard disk.

If you want to forward the voice message to someone else, simply forward the E-mail you received it in. Unfortunately, Voice E-Mail 3.0 for Netscape Navigator doesn't support additional attachments of binary files, such as spreadsheets and graphics files, or the inclusion of text in the body of the E-mail. Bonzi Software plans to add these capabilities in future versions of the program.

Where can I get it?

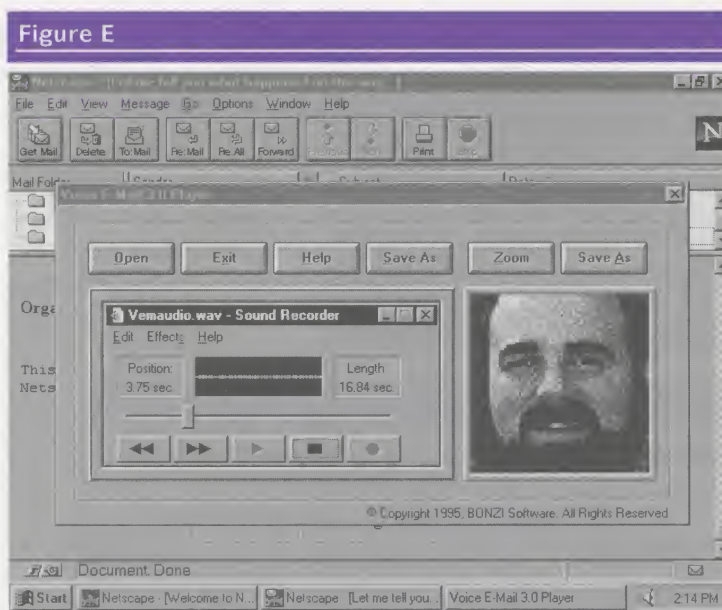
Voice E-Mail 3.0 is sold only online. To find out how to order it, visit Bonzi's home page at

<http://www.bonzi.com>

The price is \$29.95 for a single-user license. Remember, only the Voice E-Mail Player is free.

Conclusion

In this article, we've reviewed the features of Voice E-Mail 3.0 for Netscape Navigator. This program quickly and easily sends voice messages



You can see who sent you the message in the Voice E-Mail 3.0 Player window.

via electronic mail. Playback quality is superb due to lossless compression technology. Check out this great new tool for Internet communication. Voice E-Mail is lots of fun! *

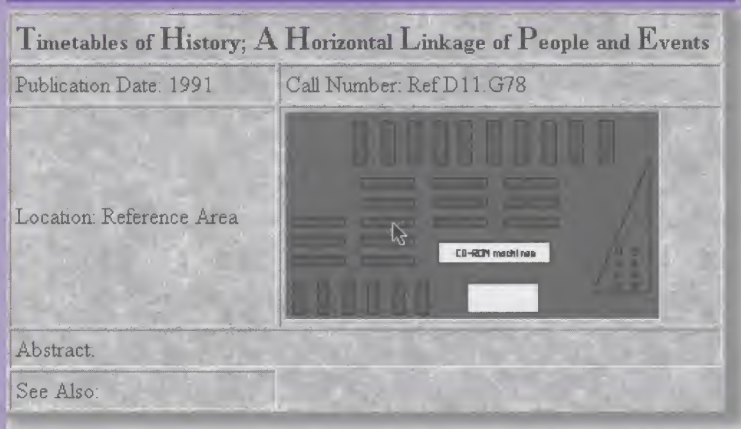
Using Web pages to display internal maps

Here at *Inside the Internet*, we're always looking for new ways to display information on the World Wide Web. One day, while we were using search engines to locate sites devoted to world history, we came upon the Web page shown in Figure A. You can find this page at

<http://www.gettysburg.edu/response/ref/his/thah.html>

The library of Gettysburg College in Gettysburg, Pennsylvania, uses Web pages to display information on its titles. What makes the Web site interesting is that it includes a map of the library, with an arrow that points to the shelf where you can find the book you're looking for. Anyone who's ever written a research paper can appreciate how much time this idea can save. *

Figure A



This Web page is a great time-saver!

CyberCash brings transactions to the Internet

While many companies are still trying to find out how to be profitable on the Internet, other companies are forging ahead, selling their goods online. There are numerous ways to process online transactions. Some companies use proprietary encryption,

while others use First Virtual's account system. CyberCash offers a new combination of security features that allows you to purchase goods from CyberCash vendors. Read on to learn more about CyberCash and how you can use it to buy merchandise online.

What is CyberCash—the company?

CyberCash is a company that lets you buy items on the Internet spontaneously and immediately. If you've used other Internet payment systems, you're probably familiar with E-mail verification and punching in credit card numbers on your phone. With CyberCash, your transactions occur instantly and securely.

CyberCash was founded in 1994 by Bill Melton (who also founded Verifone and Transaction Network Systems) and Dan Lynch (who also founded Interop), as well as a few other people. CyberCash has been providing secure credit card transactions over the Internet since April 1995. In addition, CyberCash is connected to 80 percent of American banks. Not only does CyberCash allow you to pay for items with your credit card, but it also lets you pay directly from your checking account—securely.

You can find out more about the company at its Web site:

<http://www.cybercash.com>

What is CyberCash—the product?

CyberCash is the product that will take Internet payment systems into the future. CyberCash Wallet, an application that resides on your computer, makes this process possible. When you want to process a transaction via CyberCash, CyberCash Wallet activates and processes the transaction for you via secure Internet connections.

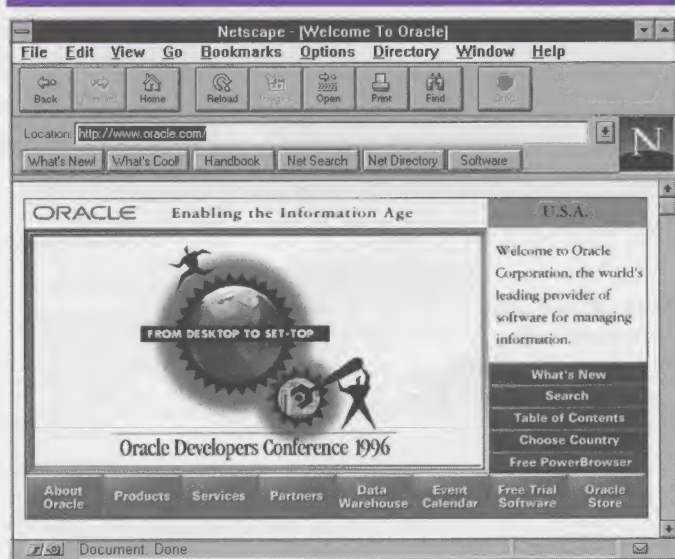
For example, let's visit the Oracle Web site shown in Figure A. At this Web site, you can purchase Oracle's products online using the CyberCash system. If you go to the address

http://commerce.us.oracle.com/cgi-bin/oraweb1/Foraweb_blank_order

you can see the Oracle online order form, as shown in Figure B.

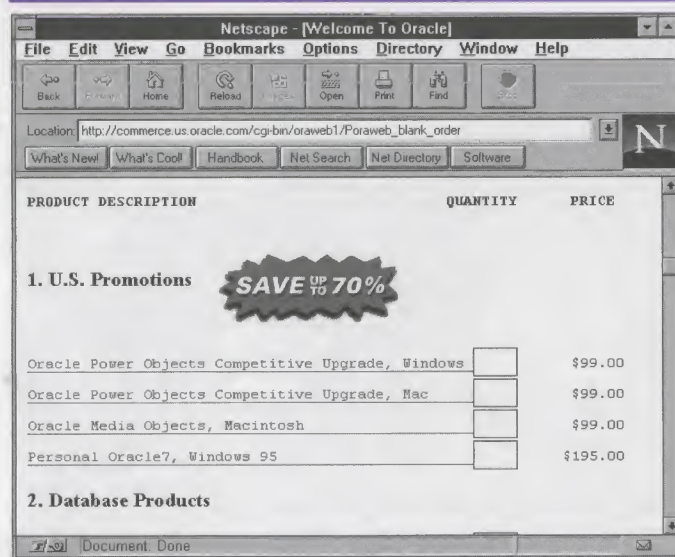
Once you select the items you wish to buy and review your order, you can select to pay

Figure A



The Oracle Web site supports the CyberCash payment system.

Figure B



You can order items on the Oracle Web site and pay via CyberCash.

via CyberCash. When you click the CyberCash option, the CyberCash application loads and asks for your CyberCash ID and password, as shown in **Figure C**. CyberCash will then tell you that a vendor has posted a transaction and ask if you want to pay; select Yes to pay. Next, CyberCash will display the Payment dialog box. This dialog box shows you an itemized bill, which credit cards the vendor accepts, and your payment options. Simply select one of your available credit cards and click the Pay button to process your transaction.

Notes

What's the future of interactive transactions and online payment systems? No one knows for sure, but it's certainly heading in the user-friendly direction. Pretty soon, CyberCash will

let you make transactions directly from your checking account.

Conclusion

While virtual shopping isn't the flashy paradigm shown in Hollywood movies, it is becoming a reality. Whether businesses like it or not, they'll eventually have to make their services and products available to virtual customers. Companies like CyberCash help make the online payment system a reality today. In this article, we've shown you the CyberCash online payment system and illustrated its use. *

Figure C



CyberCash makes you log in with an ID and password.

HTML authors unite!

If you're new to HTML (Hypertext Markup Language), you've undoubtedly had some questions that you'd like to ask veteran Web page authors. Or perhaps you have some advice or experiences of your own that you'd like to share. If so, you can now join a LISTSERV (electronic mailing list) dealing with all aspects of HTML authoring and design.

This LISTSERV is appropriately called The HTML Authoring Mailing List, and membership is free and open to anyone. The LISTSERV includes discussions on both Macintosh and PC tools. Cy Fenton of NetCentral created this list and distributes it daily in an unmoderated digest format. If you'd like to subscribe, send an E-mail message to

html-list-request@netcentral.net

In the body of the message, type the word **subscribe**

Your subscription will go into effect immediately, and you'll begin receiving messages as the LISTSERV distributes them. To end your subscription at any time, send an E-mail message to the address above, but substitute the word *unsubscribe* in the body of the message. You must be a subscriber to post messages to this LISTSERV.

This mailing list is intended for HTML authors that have experience writing HTML code. If you need help getting started with HTML, check out Yahoo!'s list of HTML primer sites at

http://www.yahoo.com/Computers/World_Wide_Web/HTML/ *

Do you have great ideas?

Do you have an idea, tip, or technique you think would make a great article in *Inside the Internet*? If so, please send it to us! If we use your idea, tip, or technique as the basis for an article, we'll pay you and give you a byline.

You can fax your ideas, tips, and techniques to us at (502) 491-3433, or you can mail them to us at the following address:

Great Ideas
Inside the Internet
The Cobb Group
9420 Bunsen Parkway, Suite 300
Louisville, KY 40220

E-mail: ineteditor@merlin.cobb.zd.com

If you intend to explore cyberspace successfully, you're going to need an excellent navigational system. Search engines like WebCrawler and Lycos represent the compasses of cyber-mariners, but working with only one or two search engines means ignoring entire sections of cyberspace.

What is SavvySearch?

SavvySearch is a Parallel Internet Query Engine designed to simultaneously query groups of search engines like DejaNews, EInet Galaxy, InfoSeek, Lycos, Inktomi, the Virtual Software Library, Yahoo!, and WebCrawler. SavvySearch works by developing a search plan from the query information you provide. When you submit a query, SavvySearch ranks each search engine it accesses by looking at current Internet traffic, estimating turn-around time, and deciding which search engines will provide the best results for your query. SavvySearch then uses two to five search engines that will yield the best performance. You can find the SavvySearch home page at

<http://www.cs.colostate.edu/~dreiling/smartform.html>

The query form

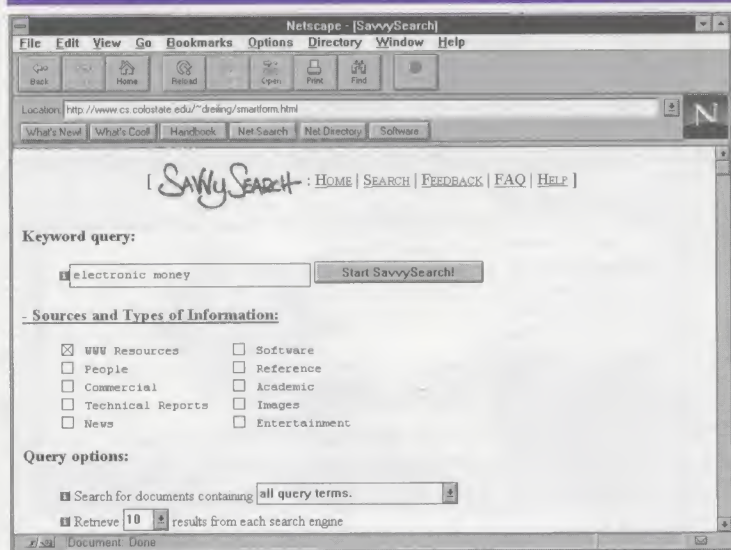
To fill out the SavvySearch query form, shown in **Figure A**, you'll need to provide a keyword query, select options from the Sources And Types Of Information section, and specify the display and number of results you want.

In the Keyword Query box, use simple and exact words to describe the subject you're searching. For example, if you're trying to find information about online payment systems, you might use the keywords *electronic money*. SavvySearch treats white spaces as the Boolean operators AND or OR, depending on how you configure the Search For Documents Containing box. However, only a few of the search engines queried by SavvySearch support the OR operator, so most results will use the AND operator.

In the Sources And Types Of Information section, you'll need to choose from the ten categories listed. These categories help form the search plan that SavvySearch uses to determine search engines it will query.

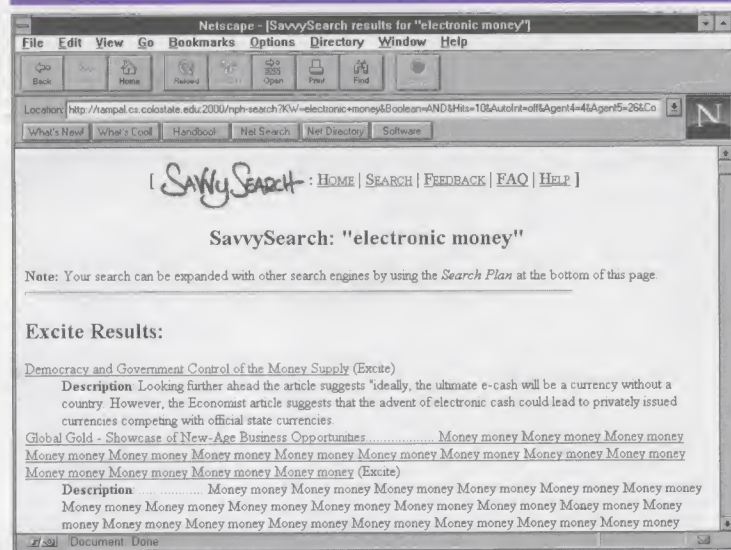
In the Retrieve box, which is located in the Query Options section, you can determine the number of results SavvySearch retrieves from each search engine—from 10 to 50 results.

Figure A



The SavvySearch meta-search engine queries groups of Internet search engines simultaneously.

Figure B



SavvySearch returns the results from the search engines in the group you select.

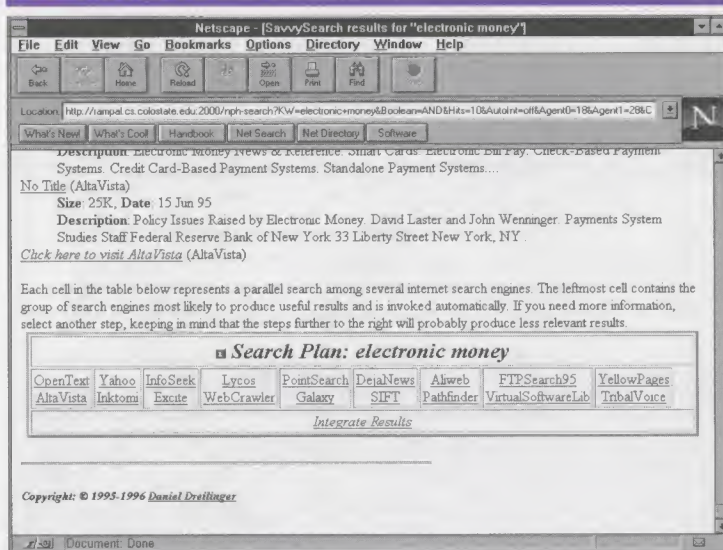
Each search engine will display this number of results separately unless you choose the Integrate Results option. If you integrate your search results, they will be easier to interpret, but the search will take longer.

Finally, you can choose to display your search results in the Brief, Normal, or Verbose format. This query option determines the amount of information each search will yield. For example, the Brief format usually contains only a title, hypertext link, and the name of the search engine SavvySearch used to find the results. The Verbose format, on the other hand, includes information like the URL (Uniform Resource Locator), the size of the file, dates, the author's name, and the search engine.

The search results

Search results take longer with SavvySearch than with other search engines, but you'll usually find what you need the first time. **Figure B** shows non-integrated search results for the query *electronic money*. SavvySearch groups the results by the search engines it queried—Excite and InfoSeek—and includes hypertext links by title. **Figure C** shows how SavvySearch grouped the search results. If you don't find what you're looking for in the first set of search results, just select another group of search engines, and SavvySearch will query them.

Figure C



SavvySearch performs parallel searches in groups.

Notes

In the realm of cyberspace, SavvySearch provides you with a comprehensive search tool for finding the information you need. SavvySearch is available in 15 languages including English, French, German, Italian, Spanish, and Esperanto. *

Inside the Internet glossary

In *Inside the Internet*, we use several terms that may seem uncommon, since you may not hear many Internet terms used in the "real" world. We've likely discussed many of these terms in past issues. However, for everyone's benefit, we'll use a glossary to explain terms, ideas, and other pieces of information that relate to Internet issues and topics.

If you're looking for a word or topic that's not in this glossary, we suggest that you try the Jargon file. You can find the Jargon file on the Web at any of the following addresses:

<http://www.ccil.org/jargon/jargon.html>
<http://www.fwi.uva.nl/~mes/jargon/>
<http://www.runes.com/jargon/>

FTP (File Transfer Protocol)

A protocol used to transfer files from one Internet-connected computer to another. You'll use FTP to download from most file archives on the Internet.

HTML (Hypertext Markup Language)

A simple, text-based, generic, markup language for representing the design and contents of documents that World Wide Web browsers can display.

HTTP (Hypertext Transport Protocol)

A fast, efficient information-retrieval protocol designed to distribute information quickly to as many people as possible. HTTP is the underlying protocol of the World Wide Web.

POP (Post Office Protocol)

A protocol that allows users to retrieve electronic mail messages from a mail server.

SMTP (Simple Mail Transfer Protocol)

A protocol that allows users to send electronic mail on the Internet.

VRML (Virtual Reality Modeling Language)

A language used for creating virtual reality worlds on the Internet. Using VRML, developers can design objects in 3-D space.

Find that missing E-mail address in the Four11 White Page Directory

If you thought remembering someone's phone number was difficult, you may find E-mail addresses to be even more challenging. Sure, an address like joeweb@aol.com is easy to recall. But then again, you could be fumbling for Dominic_Bosco@mm.cobb.zd.com. Sometimes it's even hard to remember your own E-mail address.

Who do you call when you need to find someone's E-mail address? Unfortunately, calling the person on the phone is still the best way to get it. But when you really can't find a person's E-mail address, you probably won't be able to find his or her phone number either.

Just dial four11.com

Luckily, there's an operator standing by to help you at the Four11 Corporation, a company that provides a large free White Page directory on the Internet. At this Web site, you can search for E-mail addresses you've misplaced or find new ones for lost friends and relatives.

Microsoft Internet Explorer users will find this service especially convenient since Microsoft has put a link to the Four11 White Page Directory on its Web site's Phone & Address Look-up page, shown in **Figure A**. To find this link, click the Services link on the Microsoft home page (<http://www.msn.com>) and then click the E-mail Addresses & Home Pages link.

It's really free

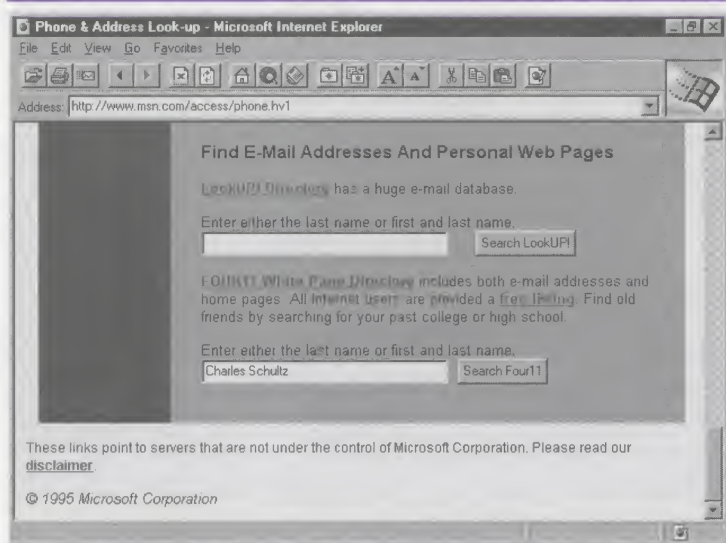
When you search the Four11 White Page Directory from Microsoft's Phone & Address Look-up page or directly at <http://www.four11.com>, shown in **Figure B**, you're accessing a dated copy of Four11 Corporation's database. You're limited to viewing 50 addresses that meet the search criteria you gave. **Figure C** shows the result of a search for Charles Schultz. We remember where Charles works, so when we click the link columbia.edu (Columbia University), Four11 gives us his E-mail address.

If you want to access the more current database and view up to 100 matches, you'll have to become a registered user of the Four11 directory. When you fill out a form that enters your name and E-mail address (and other information) in the directory's database, Four11 will register you and give you a special URL that includes your password, which you can put in Internet Explorer's Favorites list. You'll use this URL to automatically log in every time you visit the Four11 directory. But becoming a registered user is still free, so what's the catch?

You can pay if you want to

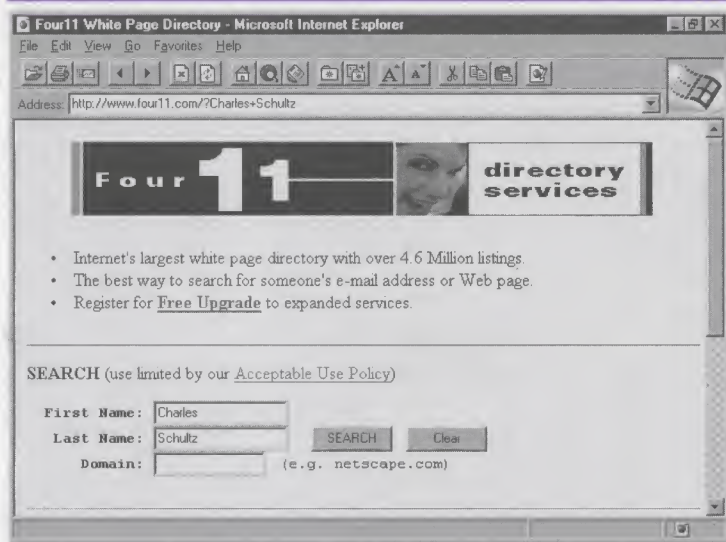
The Four11 Corporation sells a variety of Internet services, from virtual Web sites to PGP

Figure A



Microsoft provides a link to the Four11 White Page Directory on its home page.

Figure B



You can search the Four11 directory at <http://www.four11.com/>.

(Pretty Good Privacy) key servers. When you register as a user with the Four11 directory, you'll have the option to "upgrade" to these fee-based services at any time. Complete service descriptions and pricing are available on the Four11 Web site.

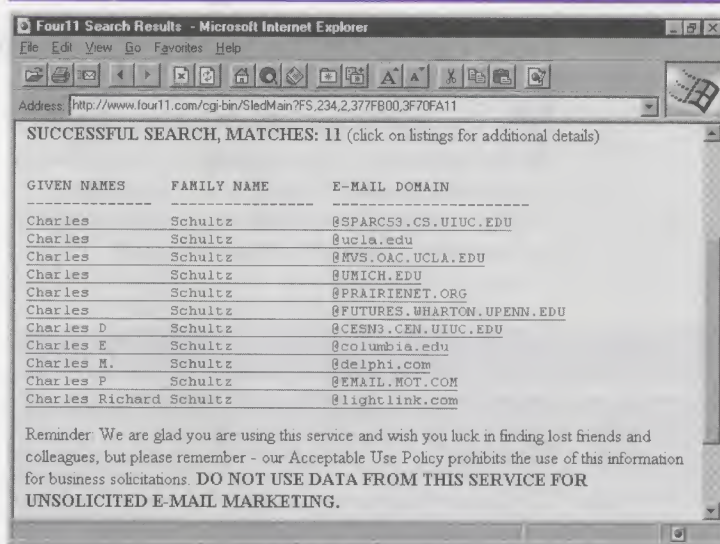
Worried about junk E-mail?

If you want to keep your E-mail address to yourself, don't register with the Four11 directory. But you should be assured that Four11 will not sell your address to a company; Four 11 clearly prohibits use of its directory for marketing purposes.

Conclusion

You can use the Four11 directory to find a person's E-mail address. You can also make your own address easier to find by registering for a free membership. *

Figure C



As an unregistered user, you can view up to 50 matches that meet your search query.

Still looking? Try the lost and found

In "Find That Missing E-mail Address in the Four11 White Page Directory," we show you one way to find someone's missing E-mail address. If you're still striking out in your search for an E-mail address, you should try the Lost and Found International Lost Friends Center.

This privately funded organization provides a large database of "lost contacts"—inquiries made by people who have lost contact with someone they wish

to find. You can submit a lost contact entry, and the Web site will post it for 45 days. An entry consists of the person's name, age, description, country of origin, where they were last seen, their contact information, and so forth. This service is free, so if you need to find someone or you think that someone may be looking for you, visit the site at

<http://www.lost-and-found.com/lfc/locate.html>

Roadside Café

It's magic!

No, it's not the Doug Henning home page—it's the Unofficial David Copperfield home page. You can read about how Copperfield got started in magic, find out tour dates, and even read articles on his significant other, super-model Claudia Schiffer. If you're a thrill-seeking Internet surfer, check out the clock section and see interactive magic on the World Wide Web. You'll find the Unofficial David Copperfield home page at

<http://www.rit.edu/~dbh6913/DavCop/copidx.html>

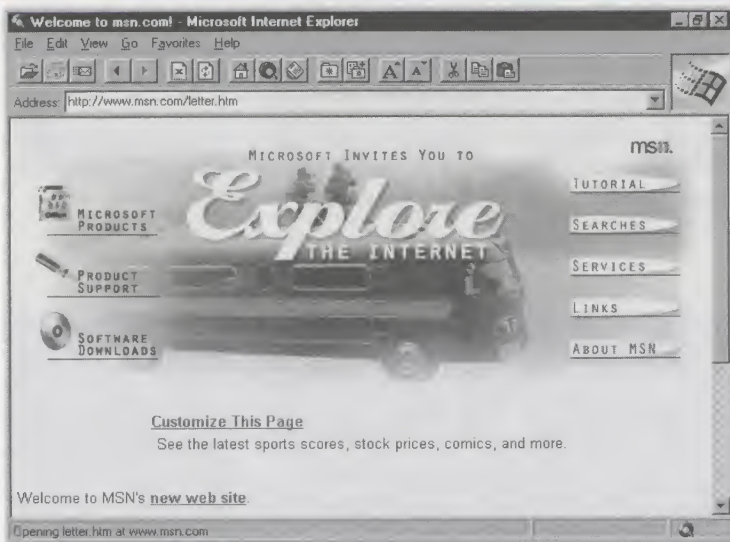


Customizing the Microsoft Network start page

Keeping up to date on current events can be difficult. There are changes in the world every minute, and the Internet reflects those changes, offering a huge variety of news sources about world events, the computer industry, and the Internet itself.

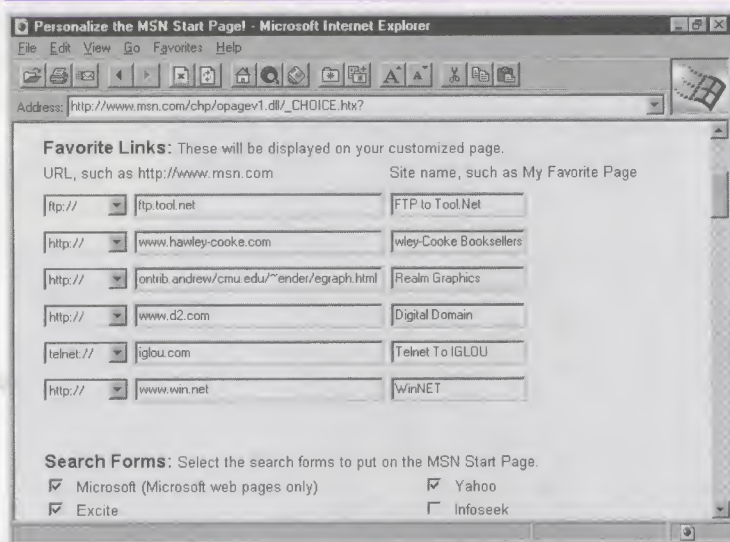
If you're a new Internet user or a veteran whose bookmarks have overgrown their folders, you'd probably enjoy one Web site that has the news you can use. Microsoft now offers such a Web site to all Internet users, not just Microsoft Network (MSN) members, and it's free of charge—the MSN start page.

Figure A



Microsoft wants the MSN Web site to be your "start page" of choice.

Figure B



You can specify your favorite links and select others from a list of custom resources.

Overview

You can find the MSN start page, shown in Figure A, at

<http://www.msn.com>

At this site, you'll find an extensive selection of links to Web search engines, reference sites, and of course, information about the Microsoft Network. There's even an Internet tutorial available for new Internet users.

Microsoft wants to make this site your preferred starting point—or start page—each time you surf the Web. Microsoft has added a new feature allowing you to create your own version of the site with links to news, services, product information, and sites of your choice. In this article, we'll show you how to use and customize the MSN start page.

Start me up

To use the customize feature on MSN's start page, you'll need to view it with either Microsoft Internet Explorer 2.0 or Netscape Navigator 1.0 or later. The customize feature supports other third-party browsers, and MSN's Web server will tell you if the browser you're using is compatible. If it isn't compatible, MSN's Web server will give you instructions on how to get one that is.

Choose your links

First, select the Customize This Page link in the middle of the start page. You'll then see a list of resources containing options you can choose from, as shown in Figure B. The start page will ask you to specify or select items such as:

- your six favorite sites, including HTTP, FTP, Telnet, and Gopher
- five search engines

- quotes from up to seven of your favorite stock quotes and sports scores
- Reuters/Excite news bulletins
- Ziff-Davis computer news
- TV listings
- United Media comic strips
- local and national weather information
- movie listings in your area

You'll also choose the color scheme and graphics resolution for your custom page. Finally, you'll need to include some personal information such as your name, city, and E-mail address. You have the option to be included in a Microsoft mailing list. If you're using Internet Explorer 2.0, you can select a music clip to be played in the background. When you've completed the form, select Set Up Page at the bottom of the customize page and you're done.

Making your custom page "home"

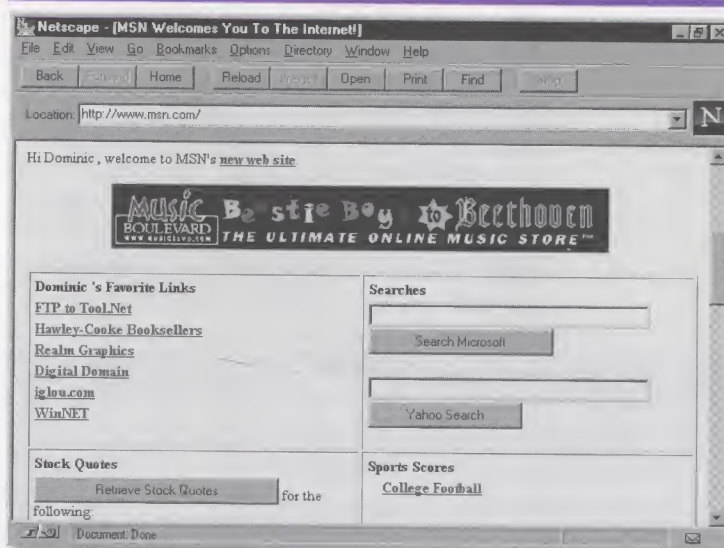
After you've customized the page, the MSN Web server will greet you by your first name, as shown in **Figure C**. Each time you return to the MSN start page, it will recognize you and update your resources.

How does MSN's Web server recognize you and give you your own customized page? It uses a new implementation of the Hyper-

text Transport Protocol (HTTP) called *Cookies* (for no apparent reason). We'll discuss Cookies in more detail in a future article.

When you open Internet Explorer 2.0, it will load the MSN start page automatically. Netscape calls the start page the *home page*, and you can easily change it by using the General Preferences... command under the Options menu. *

Figure C



Each time you return to the MSN start page, it will recognize you and update your links.

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Toll free (800) 223-8720 (US) / (0800) 961897 (UK) • Local (502) 493-3300
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Net Scout Services track resources for educators and researchers

As the Internet continues to develop as an advertising and entertainment medium, it's sometimes easy to forget that the education community was its first audience. If you're a researcher or teacher, you'll be glad to know about Net Scout Services. This project is sponsored by InterNIC and is comprised of reports on the Internet resources, network tools, publications, and conferences that you'll find useful. In this article, we'll introduce you to the project's sponsor and the three Net Scout Services, and tell you how to access them.

What's InterNIC?

InterNIC (Internet Network Information Center) is a project sponsored by the National Science Foundation. As you know, the Internet is the largest computer network ever devised. Inter-

NIC provides the various registry services (such as domain name and Internet Protocol addresses) needed for the Internet to operate effectively. The University of Wisconsin conducts the InterNIC's Net Scout Services project. Because the needs of the education community are so varied, the project is divided into three services. Let's take a look.

The Scout Report

Figure A shows the table of contents of The Scout Report, a weekly newsletter. The Scout Report features summa-

ries of Web sites categorized under Research and Education, General Interest, and Network Tools. You'll find descriptions of sites covering topics from molecular biology and women's studies to the 1996 Presidential campaign. The newsletter also profiles sites with new search engines, Internet client programs, and Web browsers. You can subscribe to an electronic mailing list and receive the newsletter in plain text or HTML (Hypertext Markup Language) via E-mail, or you can visit the newsletter's Web site at

<http://rs.internic.net/scout>

Net-Happenings

This service posts daily announcements of electronic mailing lists and magazines, conventions, publications, and Web sites. The moderator, Gleason Sackman, selects which items appears in the forum. Educators in the kindergarten through 12th grade classroom will find lots of useful information here. You can access the same Net-Happenings postings in the USENET group called comp.internet.net-happenings or read them on the Web at

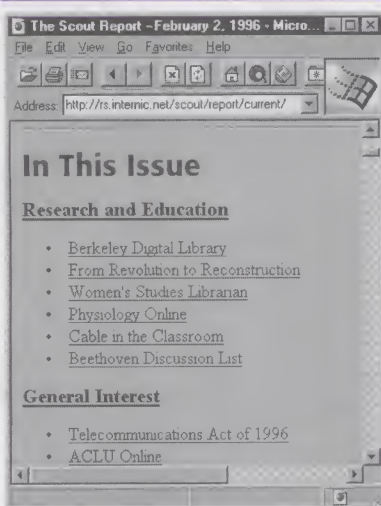
<http://www.mid.net/NET/>

The Scout Toolkit

This site is a catalog of network tools. You'll find links to software such as Web browsers, FTP (File Transfer Protocol) clients, mail clients, and news readers. There's also a directory of Web search engines. While this site is not an inclusive list of all network tools, it's a guide to ones that would be useful to educators and researchers. You can find The Scout Toolkit home page at

<http://rs.internic.net/scout/toolkit/> *

Figure A



The Scout Report summarizes new Web sites of interest to researchers and educators.

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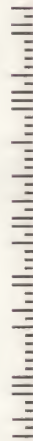


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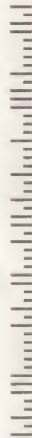
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